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a brave officer, who

AMYL NITRITE IN EXOPHTHALMIC
GOITRE.

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the Goitre developed

J. L. Stahl

AMYL NITRITE IN EXOPHTHALMIC GOITRE.

BY EDWARD T. BLAKE, M.D., REIGATE.

[*Reprinted from THE PRACTITIONER for SEPTEMBER 1877.*]

I WAS consulted on the 23rd of April, 1877, by Mrs. L. Q., aged forty-five, the widow of a military officer. She has lived nineteen years in India, whence she has just returned. She has light hair, is of spare habit and medium height. The face is flushed and sunburnt, the eyeballs, especially the right, are very prominent, giving to the patient the appearance of being half strangled.

The neck is thin, the jugulars full, the throbbing of the carotids plainly visible.

The right lobe of the thyroid is much enlarged, the left less so.

Her *medical history* has not been very eventful. She had chicken-pox, measles, and whooping-cough before the age of ten.

The catamenia appeared at sixteen, preceded by languor and "fainting-fits."

She married at the age of twenty-six.

At twenty-eight and twenty-nine she suffered much from "diarrhœa" and "fever" (dysentery and paludal fever).

Soon after this she lost her husband, and growing weak and thin, she came home, being then thirty years of age.

In October, 1875, aged forty-three, had rather severe uterine hæmorrhage for ten days, and from that epoch she dates her illness. She says in her own notes of her case: "From that

time I have never been quite well ; I have always felt tired ; I have been troubled with incessant thirst, with little appetite for food."

The periodic flow finally left her at the close of 1876.

During the last four or five years, there have been occasionally piles, and sometimes vulvar *pruritus*. The memory has been certainly impaired for the last twelve months.

In July, 1876, she first perceived a swelling on the right side of the larynx, and soon afterwards she found the left eyeball becoming protuberant. Ere long the left lobe of the thyroid began to enlarge, this was followed by prominence of the right eye.¹

She sought advice, the neck was rubbed with *Ung. Iod.*, and afterwards *Emp. Bellad.* was applied, but without much benefit.

Falling of the hair over the optic apparatus was not present in my case ; but a peculiar condition of the nervous system was very marked. The patient was fluttered and disturbed by the approach of a stranger, and there was much general muscular tremor ; this was first observed in the legs in October, 1875 ; in the arms not till the spring of 1876.

With the exception of her very œdematous legs, she is now much emaciated.

Beyond the failure of memory, so common after the climacteric, there are no mental nor cerebral symptoms whatever ; she has indeed taken a desponding view of her case during the last six months, and for the same length of time has observed a progressive impairment of the vision of both eyes.

The face and neck are always flushed, the veins of the forehead especially prominent, and this prominence is not due to

¹ This cross method of the eye and gland affection was, I believe, first observed by Dr. Burney Yeo, in a paper read before the Clinical Society on 9th of last March ; his paper may be seen in the *British Medical Journal* for March 17th, 1877, p. 320, where there is a capital illustration of a right goitre with a left exophthalmos.

In his admirable summary he draws attention to our points :—

1. *The order of evolution of the phenomena.*
2. *The occurrence of unilateral exophthalmos as well as unilateral goitre.*
3. *Coincident alopecia of cutaneous tracts adjacent to the enlarged eyeball.*
4. *Important diffused phenomena, as:—recurrent diarrhœa, profuse perspirations and emotional excitability of the nervous system, so frequently ignored.*

mere dilatation ; evidently the venous walls have undergone some kind of hypertrophy. There is no photophobia. The sclerotics are yellow and injected.

The left ear feels "stuffed," but though the heart beats with great force and frequency, she never experiences any species of *tinnitus*. The neck measures eleven inches above the thyroid, and over the gland thirteen inches. The tumours in the neck can be emptied by pressure. The mouth is always dry, and in the morning "feels like a chip." There is follicular pharyngitis, and associated with it, as we so often see in the other sex, the hyper-resonant chest of emphysema. She thus has two reasons for complaining, as she does, of a "dry tickling cough, worse at night."

The area of superficial cardiac dulness is much increased, both vertically and laterally. It reaches from the third to the sixth rib. There is a systolic *bruit* and marked "heaving impulse." The heart beats a hundred and twenty per minute.

After animal food she gets gastralgia, which is relieved by vomiting.

Vertical liver-dulness = 4 in. The bowels act daily, but the stools are pale and clay-like ; no diarrhœa.

The spleen is natural.

The urine contains neither sugar nor albumen.

Besides a few scars of old cervical excoriations, the uterus and its appendages are normal in every way, so that the piles, if pelvic in origin, are at present maintained by the portal congestion.

The left arm measures six inches in circumference above the elbow, the right arm six and a half inches.

The legs are very œdematous ; she cannot lift them from the ground, but has to raise them by means of the hands ; they measure fifteen inches at the calf, ten at the ankle.

The skin, which, with the exception of the head and neck, is generally cold, is prone to itching. She has been subject to severe sweatings since February.

She suffers greatly from the heat. With the exception of dreaming and the cough, her nights are good.

Pulse 120, Resp. 25. Temperature 8.30 A.M. 99.8 ; 8.30 P.M. 100.

TREATMENT.

I commenced by absolute rest and seclusion; I forbade all alcoholic stimuli, and put the patient on a fish, egg, and skim-milk diet. Then having got the liver into good working order by a week of podophyllin, I allowed an interval to elapse without medication, in order that I might give a thorough trial to the nitrite of amyl acting alone.

I might say that, during this time, the œdema entirely disappeared under systematic firm *massage*, applied three times a day, by a skilful rubber.

On the 14th May, I began the amyl treatment, giving two drops on sugar half an hour before each meal. Improvement was speedy and most satisfactory, so that I find entered in my case-book on the 20th of May:—"The throbbing in the head is much diminished, eyeballs much less prominent, the lids now close in sleep; the heart is quieter; there is no cough; the œdema of the legs is gone."

Pulse 108. Respiration 20. Temperature 8.30, A.M. 99·4; 8.30. P.M. 99·7.

It will be seen that the pulse had fallen from 120 to 108; the respirations from 25 to 20. The average temperature from 99·9 to 99·5.

The patient felt much subjective relief, but complaining of the severe effect of the two-drop doses, I directed one-tenth of a drop only to be taken half an hour before eating. In order that this might be a test case, I have carefully abstained from the use of adjuncts such as chalybeates, &c., and, as far as possible, from all other disturbing elements.

The patient persists in the steady use of the diminished dose, and she writes after three months of this treatment to say:—"I feel quite well in myself, better even than when I returned to India four years ago."

The neck does not decrease in size absolutely; though the patient is putting on flesh so steadily, that it no longer stands out in bold relief.

It may be said that unless the neck go down, there is no evidence of real improvement from the use of the drug; but I urge that the remarkable subjective relief experienced by the

patient is sufficient, had there been no organic improvement whatever, to make the amyl a valuable addition to our very limited therapeutic resources in coping with this interesting though still obscure condition.

1. From the preceding observations it seems probable that the affection of the eyes and thyroid has an accidental rather than an essential relationship to Graves' disease.

2. The heart occupies a more prominent pathological position than has hitherto been assigned to it, though it too will probably prove to be ancillary to some other element.

3. That pelvic disease has no causative relation to the disease of Basedow.

4. That the complaint is emphatically a neurotic one.

